
Subject: Vendor Peer Group System

Effective Date: October 1, 2006

Revised from:

Policy: The State Agency (SA) assigns each vendor into one of six (6) peer groups during the selection and authorization process. The SA's intent by using a peer group structure is to "group" vendors with similar attributes together for monitoring, authorization and cost containment. The primary purpose of the peer group structure includes but is not limited to: compliance and program monitoring, competitive pricing analysis and vendor high-risk analysis.

Reference: CFR § 246.12(g)(4)

Procedure:

1. All authorized Kansas WIC vendors are placed in a peer group based on established criteria. The State Agency (SA) determines the placement of a vendor when a vendor's application is evaluated.
2. If an application is received from a newly opening store, the vendor will be placed in the group with the most similar characteristics. This initial peer group determination is subject to change as the vendor accumulates redemption
3. The calculations and methods used to determine vendor peer grouping consist of the following:

Hierarchical Cluster [Y (: Geography, Square Footage, # Cash Registers, Ownership, # of Stores, Annual Gross Sales, Label (:ID#), Method (Ward), Standardize (1), Color Clusters (1), Mark Clusters (1), Geometric X Scale (1), Number of Clusters (6)]

Store identification (Y) - cluster analysis - peer group designation based on the cluster analysis. (Excluding any vendors having WIC redemptions greater than 50% of their food sales).

The Cluster Model is as follows: Cluster Analysis is a procedure within multivariate analysis that essentially determines whether observations are similar enough to fall into groups or clusters. Transformations of data. The Ownership variable was inverted (to make correlations positive). Sales were logged (log (X) - to shorten the scale).

In Ward's minimum-variance method, the distance between two clusters is the ANOVA sum of squares between the two clusters added up over all the variables. At each generation, the within-cluster sum of squares is minimized over all partitions obtainable by merging two clusters from the previous generation. The sums of squares are easier to interpret when they are divided by the total sum of squares to give proportions of variance (squared semi-partial correlations).

Ward's method joins clusters to maximize the likelihood at each level of the hierarchy under the following assumptions:

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- * multivariate normal mixture
- * equal spherical covariance matrices
- * equal sampling probabilities

Ward's method tends to join clusters with a small number of observations, and it is strongly biased toward producing clusters with roughly the same number of observations. It is also very sensitive to outliers (Milligan 1980). SAS Institute inc., (SAS/STAT Users Guide, Version 9.1.3, Cary, NC: SAS Institute Inc., 2004).

4. The SA reserves the right to change the criteria being used for all peer groups. The SA will re-assess the peer grouping to ensure all vendors are placed in the accurate groups on an annual basis.
5. In order to maintain cost containment, Quarterly Price Assessments (QPA's) are sent to all vendors on a quarterly basis in order for selected food type's shelf prices to be collected. The shelf price information is entered into the SA's computer system and the average cost per food type for each peer group is determined.
 - a. A buffer amount (i.e. percentage) is applied to the average cost per food type. The average cost per food type and the buffer are combined to determine the not to exceed for each check type. The not to exceed amount per check type may be different for each peer group.
 - b. The buffer amount is the same for peer groups one through six that contain regular vendors. Peer group seven which consists solely of above 50% vendors has no buffer added to the statewide redemption information that is used to determine their average cost per check type.

	Peer Group 1	Peer Group 2	Peer Group 3	Peer Group 4	Peer Group 5	Peer Group 6	Peer Group 7
A) Geo	1-3	2-5	3-5	1-5	3-5	1-4	3-5
B) Sq Ft	2,000 – 44,000	4,500 – 111,698	144,289 – 223,173	8,000 – 120,162	2,000 – 55,000	6,000 – 32,000	2,100 – 2,465
C) Gross Sales	213,000 – 12,163,586	1,542,733– 62,666,115	28,132,083- 115,296,006	2,191,704– 61,833,054	662,770 – 22,000,000	1,308,696– 8,777,255	307,439 – 506,196
D) # Cash Registers	1-9	4-32	35-58	3-9	1-11	2-7	1-2
E) Ownership	1-2	3-6	5	5	1-5	3-5	3
F) # Stores	1-3	2-38	38	38-76	1-6	2-7	3

- A) Geography**
- 1) Frontier – less than 6 persons per square mile
 - 2) Rural – 6 to less than 20 persons per square mile
 - 3) Densely-Settled Rural – 20 to less than 40 persons per square mile
 - 4) Semi-Urban – 40 to less than 150 persons per square mile
 - 5) Urban – 150 + persons per square mile
- B) Square Footage of Food Sales Floor Area**
- C) Total Annual Gross Sales**
- D) Number of Cash Registers**
- E) Store Ownership**
- 1) Single owner – single store rural location
 - 2) Single owner – single store urban location
 - 3) Single owner – multiple store locations
 - 4) Corporate – 4 or less store locations
 - 5) Corporate – 5 or more store locations
 - 6) Government owned commissary
- F) Number of Stores in Chain (Kansas store locations only)**